111 - PROFILE OF BEARERS OF THE METABOLIC SYNDROME

FRANCISCO GEORGE SUCUPIRA BARBOSA
DANIELE IDALINO JANEBRO
IONE RAMOS DE QUEIROZ
ALUÍSIO DE MOURA FERREIRA
MARIA DO SOCORRO RAMOS DE QUEIROZ
queirozsocorroramos@yahoo.com.br
Universidade Estadual da Paraíba e Faculdade Maurício de Nassau, Campina Grande, Paraíba, Brasil.

INTRODUCTION

The Metabolic Syndrome (SM) it is a complex trouble acted by a group of Factors of Risk (FR) cardiovascular, and, the genetic predisposition, the inadequate feeding and the physical inactivity, constitute the main factors for its development (SBD, 2005; DASKALOPOULOU, 2006).

The study of SM has been hindered by the consensus absence in the definition and in the points of cut of their components tends repercussion in practice clinic and in the politics of health. The World Organization of Health (OMS) extols as starting point the elevation of the Resistance to the Insulin (RI) or disturbance of the metabolism of the glucose. For National Cholesterol Education Program-Adult Treatement Paenel III (NCEP-ATP III) SM corresponds to the combination of three or more of the following components: Arterial pressure (PA); Central Obesity (OC); Triglycerides (TGs); HDL - cholesterol (HDL-c) and Glycemia in Fast (GJ) (LYRA, 2005; SBD, 2005).

The First Brazilian Guideline of Diagnosis and Treatment of the Metabolic Syndrome (I DBSM) considers that the patient presenting the components PA and TGs and using anti-hypertensive and hypolipemiants, with the previous diagnosis of diabetes a bearer is considered (SBD, 2005).

SM is seen as a world epidemic, with alarming numbers, and its development is capable to cause considerable damages the health once, it results in graduate death risk to their bearers in chronic apprenticeships and in those that don't accomplish appropriate therapy, being responsible for the elevation of cases of general mortality in about 1,5 times and the cardiovascular 2,5 times more (SBD, 2005; TAMBASCIA; GELONEZES, 2007).

Researches have been presenting high data and little optimists regarding the incidence of SM. Countries as the United States, possess 24% of his adult population with that pathological picture and that number overcomes the 50% that can to reach the 60% when the researched group is it of the seniors with more than 50 years old, what is worsened by the sedentarism. However that picture is not just reserved the third age, with great frequency children that have an inadequate lifestyle, start to integrate that group of patients (MEIGS, 2002).

Therefore, to identify bearers of SM is of great importance for a program of Pharmaceutical Attention (AF), that it involves hypertenses and/or diabetics, because it will orientate the pharmacotherapy work, the accomplishment of exams laboratorial and the orientation of healthy habits contributing like this to the reduction of the cardiovascular risks.

METHODOLOGY

The study was of the longitudinal and documental type with quantitative approach, approved for the approved ethics Committee and Research of the State University of Paraíba through the opinion nº 0145.0.133.000-07. It was developed in the period of April to May of 2007, in the Municipal Service of Health, in Campina Grande, Paraíba, Brazil. was made part of the research all the patients hypertenses and diabetics of the Program of Pharmaceutical Attention of UEPB (PROATENFAR) bearers of the SM whose evaluation of the components followed the criteria of NCEP - ATP III (ILLUSTRATION 1). The participants' individual data regarding the measure of OC, gauging of Arterial pressure (PA) and the results of the exams laboratorial (TGs, HDL-c and GJ) they were collected of each participant's individual record. The obtained data were treated through the percentile statistics and they will be presented in form of illustrations.

COMPONENTS	LEVELS
Abdominal obesity through abdominal circumference	
Men	>102 cm
Women	> 88 cm
Triglycerides	=150 mg/dL
HDL Colesterol	
Men	<40mg/dL
Woman	<50mg/dL
Arterial pressure	=130mm/Hg ou = 85mmHg
Fasting Glycemia	= 110mg/dL

ILLUSTRATION 1: Components of the Metabolic Syndrome according to NCEP-ATP III.
Source: NCEP, 2004; SBD, 2005. .

RESULTS AND DISCUSSION

Were accompanied 110 bearers of SM and the feminine gender was the most frequent (73%).

In Brazil, national studies of prevalence of SM still don't exist. Tambascia and Geloneze (2007) they studied the population in the semi-arid bahiano and they found a prevalence of 38,4% in women and 18,6% in adult men.

The women's outstanding presence can be related to the fact that the same ones look for more the services of health than the men. On the other hand, Carr (2003) it commented on that SM in this gender can be directly linked the hormonal dysfunction, especially in the menopause and powder-menopause.

Regarding the age group the one that deserved prominence was exactly to the interval that understood among 60 and 69 years old that it represented 39% (ILLUSTRATION 2).

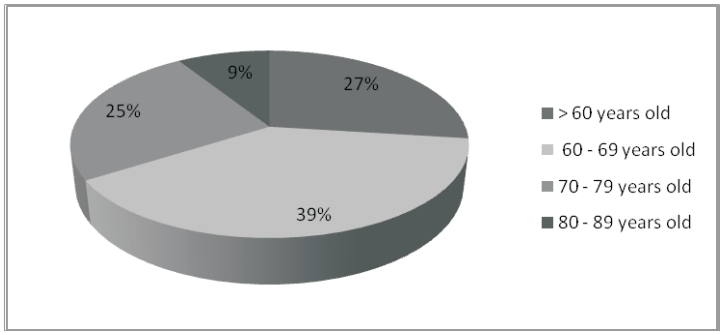

ILLUSTRATION 2: Age group of the bearers of SM.

Works accomplished in the United States registered that 23,7% of the American adults fill out the criteria diagnoses of SM, arriving the more than 43% in those with superior age to 60 years of age (LYRA, 2005). According to Pimentel (2009) the projections evaluate that only in that country, in the year 2010, 50 to 75 million will exist or more of Americans with manifestation of SM. In the results obtained in this study was verified that only 27% of the sample were not framed in this age group, being a great problem because the people above 60 years of age usually present OC that contributes to the development of the other components of SM.

It was observed that most of the participants presented 3 components of SM (ILLUSTRATION 3).

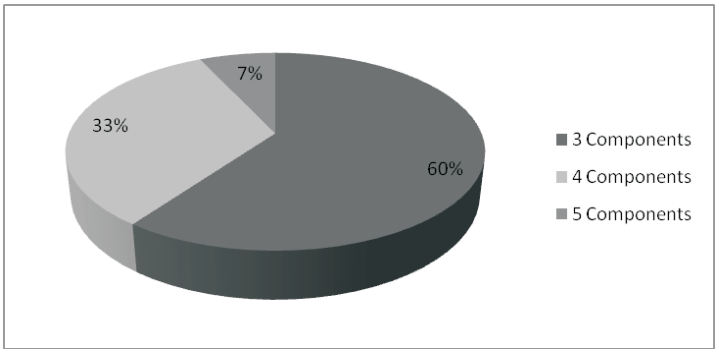

ILLUSTRATION 3: Amount of components of SM presented by the bearers of SM.

Among the components studied in agreement with the criteria of NCEP-ATP III, OC, the HDL-c low, the increase of TGs and the SHOVEL were the most frequent (ILLUSTRATION 4).

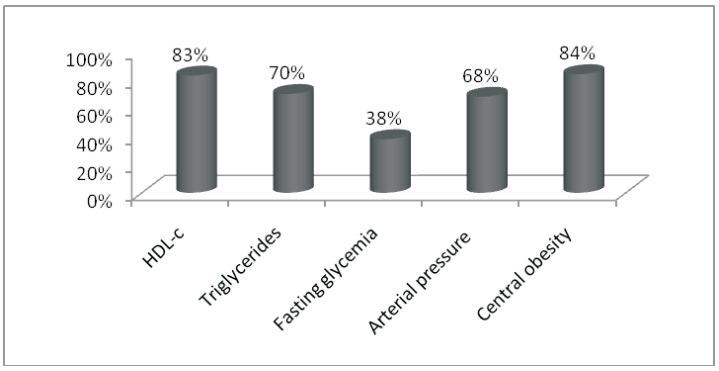

ILLUSTRATION 4: Components of SM presented by the participants of the research.

OC is intimately related with an increase of RI, that it takes the hyperglycemia and it can develop for DM 2, besides increasing the level of TGs and of cholesterol in the circulation (PIMENTEL, 2009).

Tambascia and Genoleze (2007) also affirmed that OC is the component more involved with the RI and they explained that the fat accumulation allows a great offer of acids free fatty in the liver increasing the neoglycogenese and your oxidation in the muscular fabric. Besides, the fatty fabric produces several substances that interfere in a resistance type. Among these stand out Necrosis Tumoral's Factor (TNF -α), the resistin and the leptin.

In agreement with data of National Health and Nutrition Examination Survey III (NHANES III), 86% of the patients with OC also have at least one more other cardiovascular FR (NHANES III, 2007). This statement corresponds to the results of the research, because great part of the sample presented 3 of the components of SM and OC was present in 85% of the bearers being associated TGs above the normal, low HDL-c, altered SHOVEL and/or he/she LAUGHS (NHANES III, 2009).

As for TGs (70%) and the HDL-c (83%), the presented data were preoccupying because these components contribute to the existence of cardiovascular events, that correspond the main causes death in the world. Based on information of the Department of Computer science of the Unique system of Health (DATASUS), in Brazil 2,5% of the deaths correspond DCV being responsible for 250.000 deaths year (DATASUS, 2009).

In this study 75% of the bearers of SM were hypertenses. The (HAS) is extremely a problem of public health common to geriatric population, affecting around 65% of the individuals between 65 and 75 years. In people with less than 50 years it is more common in the men and in the women in menopause period (SCHREIBER, 2004).

Tambascia and Geloneze (2007) commented that the (HAS) happens with larger prevalence in the population of

obese and of Diabetes Mellitus type 2 (DM2) and that to the RI would have essential paper in the physiopathology of this association. They still told that the insulin has action in the kidneys, inducing the secretion of acid uric, of potassium and of sodium. Like this, it can be foreseen that as larger the levels of insulin larger effect anti-natriuretic will happen, taking the expansion of the total sodium that can begin, to maintain or to worsen the Systemic Arterial Hypertension (HAS). In this work, DM2 was present in 25% of the participants and associate to the (HAS).

The prevalence of that type of diabetes is increasing a lot and acquiring epidemic characteristics in several countries, particularly us in development (SARTORELLI; FRANCO, 2003). In Brazil, the cities of the areas South and Southeast, considered of larger economical development of the country, present larger prevalences of DM and of tolerance to the reduced glucose. The main factors associates to the largest prevalence of the diabetes in Brazil were to the obesity, the population aging and the hereditariness (MALERBI; FRANC, 1992).

The hyperglycemia, and other typical alterations of the diabetes will cause additional damage to the wall of the arteries and veins, favoring the atherosclerosis and growing obstruction of the vases, that it will condition an increase of the Arterial Pressure (PA) or an aggravation of this increasing the risk of Cardiovascular Diseases as Sharp Infarct of Myocardium or Cerebral Vascular Accident besides other complications, as renal inadequacy and cataract (SARTORELLI; FRANC, 2003).

The participants for present several components of SM are dependent of a larger number of medicines and most of them uses from 2 to 4 items (ILLUSTRATION 5).

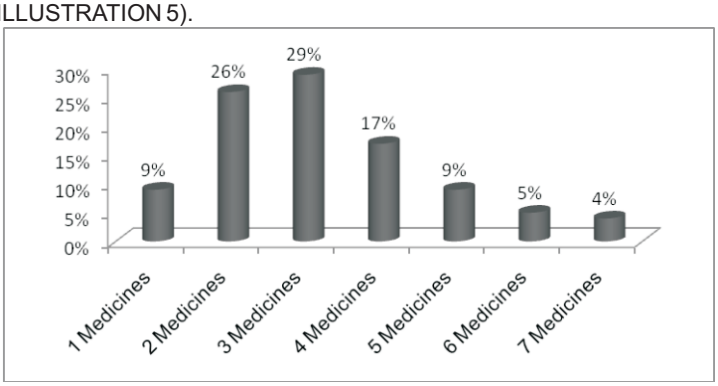

ILLUSTRATION 5: Amount of medicines used by the bearers of SM.

The seniors' diseases are usually chronic as Systemic Arterial Hypertension (HAS) and/or DM2, but can also present osteoporosis and another that take to the consumption of a number still larger of medicines. In the studied sample the largest consumption of medicines was related to the anti-hypertensive, it was also registered the anti-hypertensive presence associated with hypoglicemiants and anti-hypertensive with hypoglicemiants and hypolipemiants. Of the anti-hypertensive the more prescribed were: Captopril, hidroclorotiazida and propranolol; regarding the hypoglicemiants glibenclamida and metformina and the sinvastatina.

According to Thomburg (1997) the rational use of medicines for the senior constitutes challenge for the patient and for the doctor also. Azevedo (2009) through studies it verified that the use of medicines in the third age is very high acting about 25% of the pharmaco sold in Brazil. Another important fact is that most of the time the concomitant use is accomplished of more than one pharmaco could result in Negative Results to Medicines putting in risk the life, taking to an internment or even in death.

It doesn't just advance to consume medicines, a lot of times the wanted result is not the expected. The treatment well happened demands instructions regarding changes in the lifestyle and the pharmacotherapy correctly suitable.

CONCLUSION

SM usually reaches people of the third age and its presence increases the risk of cardiovascular event considerably. The difficulty of the treatment of SM consists of the patient's adhesion, for this reason, the integrated performance of a team multidisciplinary composed by doctor, pharmacist, nutritionist, physical education teacher, nurse, psychologist and social worker, are highly desirable and without a doubt a great step for future conquests. In this sense, educational programs that approach the preventive measures in schools, clubs, companies, units of health and communities can contribute definitively to prevention of SM and/or to stimulate its treatment.

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MARIA DO SOCORRO RAMOS DE QUEIROZ
queirozsocorroramos@yahoo.com.br
Endereço: José de Alencar, 286
Bairro: Prata
CEP: 58400-500
Campina Grande-PB
Telefone: 08333212852

PROFILE OF BEARERS OF THE METABOLIC SYNDROME

SUMMARY

The Metabolic Syndrome (MS) is represented by a group of Risk Factors (RF): cardiovascular and genetic predisposition, the inadequate feeding and the physical inactivity constitute the main factors for development. The National Cholesterol Education Program - Adult Treatment Panel III (NCEP-ATP III). MS corresponds to the combination of the following components: Blood pressure (AP), Central Obesity (CO), Triglycerides (TGs), HDL - Cholesterol and Glycemia of Fast (FG). This work had as its main objective to draw the profile of bearers of participant MS of the Program of Pharmaceutical Attention of UEPB (PROATENFAR) during the period of April to May of 2007 and it was treated as a longitudinal and documentation study with a quantitative approach. Of the 110 bearers, 73% were women, and the age group more prevalent corresponded to 60-69 years old and 75% of them presented Systemic Arterial Hypertension (SAH). The most frequent components of MS were: OC (84%), HDL-cholesterol (83%) and TGs (70%). Regarding the medicines most used: the anti-hypertensive, anti-hypertensive, hypoglicemiates, anti-hypertensive and hypolipemiantes, the ones most prescribed. The participants of the research with Cardiovascular Diseases need activities to motivate the change to healthier habits and the pharmacotherapy, reducing the possibility of Cerebral Vascular Accident (CVA), Sharp Infarct of Myocardium (SIM) or other complication that results in a disability or in death.

WORDS - KEY: Metabolic Syndrome; Hypertension; Central Obesity.

PROFIL DE PORTEURS DU SYNDROME MÉTABOLIQUE

RÉSUMÉ

Le Syndrome Métabolique (SM) il est représenté par un groupe de facteurs de risque (FR) cardio-vasculaire, et, la prédisposition génétique, l'alimentation inadéquate et l'inactivité physique, constituent les facteurs principaux pour votre développement. Pour le " National Cholesterol Education Program-Adult Treatement Paenel III (NCEP-ATP III) " SM correspond à la combinaison de trois ou plus des composants: La tension (PELLE); Obésité Centrale (OC); Triglycerides (TGs); HDL - cholestérol et Glycemia de Rapide (GJ). Ce travail avait pour objectif tirer le profil de porteurs de SM , participante du Programme d'Attention Pharmaceutique d'UEPB (PROATENFAR), pendant la période d'avril à mai de 2007 et il a été traité d'une étude longitudinale et documentaire avec une approche quantitative. Des 110 porteurs, 73% étaient des femmes; le groupe d'âge de prédominance a correspondu à 60-69 années et 75% avait présentée seulement Hypertension Artérielle Systémique (vous AVEZ). Les composants de la plupart du SM fréquent étaient: OC (84%), HDL-Cholesterol (83%) et TGs (70%). Concernant les médecines le plus utilisées de 2-4 articles, en étant l'anti-hypertendu, anti-hypertendu et hypoglicemiantes et anti-hypertendu et hypolipemiantes les associations plus prescrit. Les participants de la recherche sont soumis des maladies Cardio-vasculaires sont nécessaire à encourager des activités pour motiver le changement d'habitudes saines et les farmacoterapia, ainsi réduisant la possibilité d'ils présente l'Accident Vasculaire Cérébral (AVC), Infarctus Tranchant de Myocarde (ils sont ALLÉS) ou autre complication qui résulte en une invalidité ou mort.

MOT CLEF: Syndrome Métabolique; Hypertension; Obésité Centrale.

PERFIL DE PORTADORES DEL SÍNDROME METABÓLICO

EL RESUMEN

El Síndrome Metabólico (SM) se representa por un grupo de Factores de Riesgo cardiovascular (FR), constituyen los factores principales para su desarrollo, la predisposición genética, el alimento inadecuado y la inactividad física. Para el National Cholesterol Education Program-Adult Treatment Panel III (NCEP-ATP III) SM corresponde a la combinación de tres o más de los componentes: La tensión arterial (TA); la Obesidad Central (OC); los Triglicéridos (TGs); HDL - el colesterol y Glicemia de Ayuno (GJ). Este trabajo tenía por objetivo delinear el perfil de portadores de SM participantes del Programa de Atención Farmacéutica de UEPB (PROATENFAR), durante el período de abril a mayo de 2007 y se trató de un estudio longitudinal y documentario con el acercamiento cuantitativo. De los 110 portadores, 73% eran las mujeres; el grupo de edad más predominante correspondió a 60-69 años y 75% sólo Hipertensión Arterial Sistémica presentada (HAS). Los componentes de la mayoría del SM frecuente fueron: OC (84%), HDL-colesterol (83%) y TGs (70%). Con respecto a las medicinas la mayoría usó de 2-4 artículos, mientras siendo el anti-hipertensivo, anti-hipertensivo y hipoglicemiantes y anti-hipertensivo y hipolipemiantes las asociaciones más prescritos. Los participantes de la investigación están sujetos las Enfermedades Cardiovasculares. Es necesario promover las actividades para motivar el cambio de hábitos saludables y los farmacoterapia, mientras reduciendo la posibilidad de ellos presenta el Accidente Vascular Cerebral (AVC), Infarto Afilado de Miocardio (ellos FUERON) u otra complicación que produce una invalidez o en la muerte.

LAS PALABRAS - LA LLAVE: Síndrome Metabólico; Hipertensión; Obesidad Central.

PERFIL DE PORTADORES DA SÍNDROME METABÓLICA

RESUMO

A Síndrome Metabólica (SM) é representada por um conjunto de Fatores de Risco (FR) cardiovasculares, sendo que, a predisposição genética, a alimentação inadequada e a inatividade física, constituem os principais fatores para seu

desenvolvimento. Para o National Cholesterol Education Program-Adult Treatement Paenel III (NCEP-ATP III) a SM corresponde à combinação de três ou mais dos componentes: Pressão Arterial (PA); Obesidade Central (OC); Triglicerídeos (TGs); HDL – colesterol e Glicemia de Jejum (GJ). Este trabalho teve por objetivo traçar o perfil de portadores da SM participantes do Programa de Atenção Farmacêutica da UEPB (PROATENFAR), durante o período de abril a maio de 2007 e tratou-se de um estudo longitudinal e documental com abordagem quantitativa. Dos 110 portadores, 73% eram mulheres; a faixa etária mais prevalente correspondeu a 60-69 anos e 75% apresentavam apenas Hipertensão Arterial Sistêmica (HAS). Os componentes da SM mais freqüentes foram: OC (84%), HDL-colesterol (83%) e TGs (70%). Com relação aos medicamentos a maioria utilizava de 2-4 itens, sendo os anti-hipertensivos, anti-hipertensivos e hipoglicemiantes e anti-hipertensivos e hipolipemiantes as associações mais prescritas. Os participantes da pesquisa estão sujeitos as Doenças Cardiovasculares é preciso promover atividades que incentivem a mudança de hábitos saudáveis e a farmacoterapia, reduzindo assim a possibilidade de apresentarem Acidente Vascular Cerebral (AVC), Infarto Agudo do Miocárdio (IAM) ou outra complicação que resulte numa invalidez ou em morte.

PALAVRAS-CHAVE: Síndrome Metabólica; Hipertensão; Obesidade Central.

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